

# RESERVE COPY PATENT SPECIFICATION



Application Date : Aug. 26, 1931. No. 23,949/31.

374,702

Complete Left : Sept. 2, 1931.

Complete Accepted : June 16, 1932.

## PROVISIONAL SPECIFICATION.

### Improvements in Cans, Boxes, Canisters and the like.

We, JOHN FRANCIS CROWLEY, of Westminster House, Great George Street, Westminster, London, S.W. 1, a British Subject, and VACSEAL CONTAINERS LIMITED, of Westminster House, Great George Street, London, S.W. 1, a British Company, do hereby declare the nature of this invention to be as follows:—

The present invention relates to improvements in cans, boxes, canisters or the like.

According to the present invention, the body of the can or container is provided with a substantially horizontal flange which is separated from an upstanding rim or skirt by a shallow groove, so that a packing ring of rubber may lie within the groove and upon this flange for the purpose of the hermetic sealing under vacuum of a cap, which has a corresponding flange bearing upon the rubber band. The skirt is provided with a number of spaced depressions extending preferably down to the base of the groove co-operating with pips or corresponding projections

on the cap so that in the vacuumizing of the can the cap can move down with complete freedom upon the rubber band, but after the package has been opened, for instance, by pulling out the rubber band by means of a tab upon it, or otherwise breaking the seal, the cap can then be secured on the body in the case of a circular box by giving the cap a partial turn relatively to the body prior to replacing the cap, and then putting on the cap by axial pressure, when the pips engage frictionally with the sides of the flange; in the case of a square, rectangular or other non-circular box the pips on the lid or cap and the depressions are staggered on one side relatively to the other, or are unsymmetrically disposed, so that in this case on replacing, the cap is turned side for side.

Dated this 25th day of August, 1931.

W. P. THOMPSON & Co.,  
12, Church Street, Liverpool,  
Chartered & Registered Patent Agents.

## COMPLETE SPECIFICATION.

### Improvements in Cans, Boxes, Canisters and the like.

We, JOHN FRANCIS CROWLEY, a British Subject, of Westminster House, Great George Street, Westminster, London, S.W. 1, and VACSEAL CONTAINERS LIMITED, of Westminster House, Great George Street, London, S.W. 1, a British Company, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to hermetic or vacuum closures for jars, cans, boxes, canisters or the like, which are hermetically sealed under a vacuum, and are intended for containing and preserving foods or other substances.

The invention further relates to closures in which the container is closed by a cover or cap having a depending flange or skirt which is adapted to fit over a flange on the top or mouth of the container when the

cover is applied, and in which an elastic jointing-ring is compressed between a horizontal flange on the cover, and a horizontal shoulder or flange on the body of the container when the container is closed.

Closures for jars, bottles, cans or the like articles are known in which a cover or cap fits upon the mouth of the jar or the like by means of a bayonet joint or by means of partial threads to compress a rubber packing ring lying between the cap or cover and a horizontal flange on the jar or the like.

According to the present invention, a jar, can, box, canister or the like comprises a container-part and a cap-part where both parts are of metal, or where one part is of rigid material, such as glass; one part having a horizontal flange adapted to receive an elastic packing ring and having an upstanding flange provided with a number of vertical spaces leading

BEST AVAILABLE COPY

into a partial or complete circumferential groove immediately above said horizontal flange, which spaces co-operate with pips or projections on the other part, which may either freely pass into said spaces, or alternatively may frictionally hold upon the full diameter of the upstanding flange of the first named part, adjacent said spaces, or again may pass into the partial or complete circumferential grooves.

The invention is more particularly described with reference to the accompanying drawings in which:—

Figure 1 is an elevation partly in section of a canister according to the present invention, with cap.

Figure 2 is a sectional view of the parts on an enlarged scale in the vacuumizing position.

Figure 3 is a plan view of the body alone of Figure 1.

Figure 4 is an elevation partly in section of a modified form of construction.

Figure 5 is a plan view of a further modified form of construction.

A can body 1 has its upper edge flared outwardly at an angle as at 2, and then bent inwardly as at 3 to provide a ledge for the reception of a rubber packing ring 4, which has a pull-out tab 5. It will be seen that this packing ring 4 lies on a horizontal flange 3, which overlaps inside and outside the canister to equal extent.

A groove 6 lies at the base of a vertical flange to partly accommodate the ring 4.

A number of axial grooves 8 are provided spaced around the flange 7 to co-operate with pips 9 formed upon the cap 10, the lower skirt or rim of which is flared outwardly to provide a horizontal ledge 11 adapted to bear upon a rubber ring 4 on the ledge 3.

Now it will be seen that after the canister 1 has been filled, the cap 10 can be slipped axially directly upon the body 1, when the parts are in the position shown in Figure 1, and a tight seal will then be obtained by the normal vacuumizing process as shown in Figure 2.

In order to obtain access to the contents, the seal can be broken by tension on the tab 5, whereupon the cap 10 can be readily removed.

When it is desired to replace the cap 10, this can be pushed on the body 1 so that the pips 9 come opposite a full flange portion 7, and thereby the cap is securely and frictionally held on the body 1.

The groove 6 need not be a complete one, but may be in the form of small bayonet partial grooves, as shown at 13, Figure 4.

Although in the constructions described, the pips 9 are shown on the cap-part, it is obvious that these may be arranged on the container-part, whilst the vertical grooves 8 may be arranged on the cap-part.

Figure 5 shows the application of the invention to a rectangular container where depressions 14 on one side are staggered relatively to depressions 15 on the other side. A frictional holding of the cover on the receptacle is thereby possible by turning the cover through 180° from the position where its pips coincide in disposition with the depressions 14 and 15 respectively.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A jar, can, box, canister of the like comprising a container-part and a cap-part where both parts are of metal, or where one part is of glass, or the like rigid material, one part of which has a horizontal flange adapted to receive an elastic packing ring, and an upstanding flange provided with a number of vertical spaces leading into a partial or complete circumferential groove immediately above said horizontal flange whilst the other part has spaced pips or projections characterised by the feature that the pips or projections on the one part and spaces on the other part are so disposed that the said pips or projections either freely pass into said spaces or alternatively may, when applied by an axial thrust, in another angularly displaced position, frictionally hold upon the full diameter of the upstanding flange of the first named part adjacent said spaces.

2. A jar, can, box, canister or the like as claimed in Claim 1 in which the projections on the one part are in the form of pips upset out of the material from which the part is made.

3. A jar, can, box, canister or the like as claimed in Claim 1 in which the projections on the one part and the vertical spaces or depressions on the other are staggered on the one side of the body relatively to the other, as and for the purpose described.

Dated this 4th day of February, 1932.

W. P. THOMPSON & Co.,  
12, Church Street, Liverpool,  
Chartered & Registered Patent Agents.

*[This Drawing is a reproduction of the Original on a reduced scale.]*

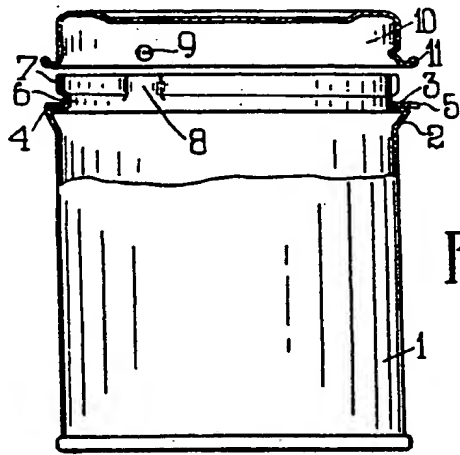


FIG. 1.

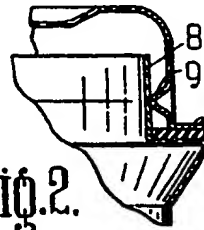


FIG. 2.

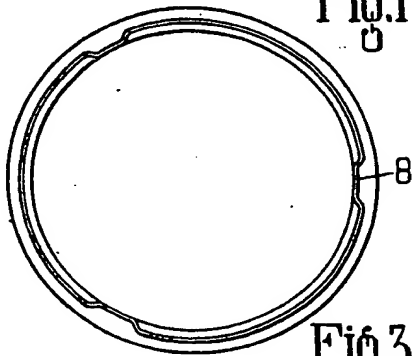


FIG. 3.

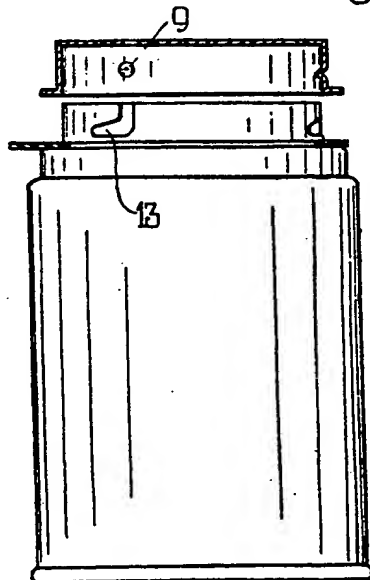


FIG. 4.

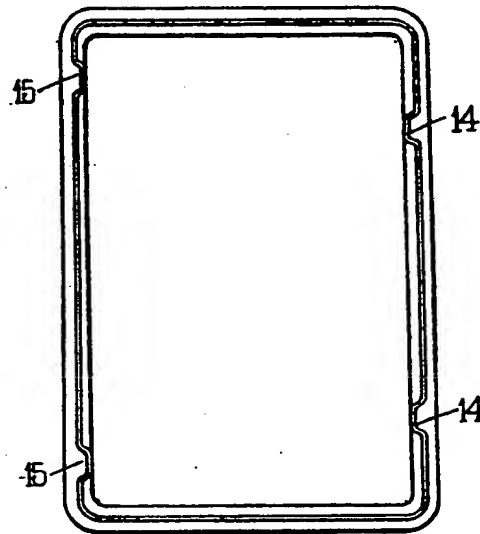


FIG. 5.

BEST AVAILABLE COPY

**THIS PAGE BLANK (USPTO)**